

M100A Flex

High-efficiency three-phase solar inverters for large commercial rooftop and ground-mounted PV systems.

200 V↑

Wide input voltage range (200 to 1000 V)

98.7%

Peak efficiency

- Lightweight with IP66 housing for harsh environmental conditions
- 8 MPP trackers for more flexibility in designing the PV system
- No string fuses required
- Anti-PID, arc detection, noise reduction feature
- Wall or ground mounting (optional)
- Optional DC surge protection devices type 1+2

110 kVA solar inverters

Input (DC)	M100A Flex
Max. input power (per MPP tracker/total)	12.7 kW/110 kW
Max. input voltage	1000 V_{DC} [1]
Operating voltage range	200 to 1000 V_{DC}
MPP voltage range with max. power	520 to 840 V_{DC} [2]
Nominal voltage	610 V_{DC}
Max. current (per MPP tracker/total)	30 A/240 A
Max. short-circuit current I_{SC}	50 A per MPP tracker
Max. number of MPP trackers	8
Max. number of module strings per MPP tracker	2
DC surge protection devices	Type 2 (EN 61463-11), replaceable, combined Type 1+2 retrofittable

Output (AC)	M100A Flex
Max. apparent power [3]	110 kVA [4]
Max. active power [3]	110 kW [5]
Nominal apparent power [3]	100 kVA
Voltage range [6]	400 V -20%/+30%, 3 phases + PE (△), 3 phases + N + PE (Y)
Max. current	168 A
Frequency range [6]	50/60 Hz ± 5 Hz
Adjustment range of power factor	0.8 cap to 0.8 ind
Total harmonic distortion (THD)	< 3% at nominal apparent power
Consumption in night mode [7]	< 3.5 W
AC surge protection devices	Type 2 (EN 61463-11), replaceable

General Specifications	M100A Flex
Delta model name	M100A_280
Peak efficiency	98.7%
Efficiency EU	98.4%
Operating temperature range	-25 to +60°C
Temperature range without power derating	-25 to +50 °C
Storage temperature range	-25 to +60°C
Relative humidity	0 to 100%, non-condensing
Max. operating altitude	4000 m (above sea level)
Topology	Without transformer
Standard warranty	5 years (warranty extension available upon request)

Mechanical design	M100A Flex
Dimensions (H x W x D)	699 × 629 × 264 mm
Weight	77 kg
Cooling	Replaceable fan module
Mounting options	Wall mounting [8], floor mounting [9]
Disconnectors	2 mechanical DC disconnectors
Connection type AC side	Screw terminals
Connection type DC side	16 pairs of DC plugs Amphenol H4 [10]

Communication	M100A Flex
Communication interfaces	2 x RS485, 2 x dry contacts, 1 x external power-off, 6 x digital inputs, Bluetooth®
Data visualization	DeltaSolar app, MyDeltaSolar Cloud
Display of operating status	3 LEDs

Safety/Standards	M100A Flex
Protection class	IP66
Safety class	I
Configurable trip parameters	Yes
Insulation monitoring	Yes
Overload behavior	Current limitation, power limitation
Anti-islanding protection/grid regulation	VFR 2019 (Enedis-PRO-RES_10E, Enedis-PRO-RES_64E), VDE-AR-N 4105 / 4110, EN 50549-1/-2/-10
EMC	EN 61000-6-2, EN 61000-6-3, EN 61000-3-11, EN 61000-3-12
Safety	IEC 62109-1/-2; CE compliance

1) The max. voltage withstand is 1100 VDC. The inverter starts to work when the input voltage drops below 1000 VDC.
2) At ambient temperatures < 30 °C: 470 to 860 VDC; at ambient temperatures from 30 to < 40 °C: 520 to 580 VDC
3) Cos Phi = 1 (VA = W)
4) Full reactive power available up to 900 V V_{OC} and restarted at a hysteresis level of 850 VDC.
5) At ambient temperatures ≤ 33 °C
6) AC voltage and frequency range are programmed based on the respective country regulations.
7) Night-time consumption with standby communication
8) Mounting plate included in scope of delivery
9) Mounting feet can be ordered separately
10) Included in scope of delivery

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